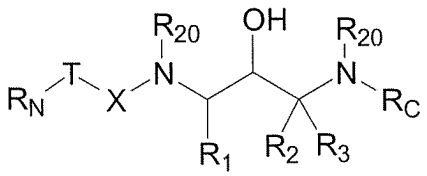
Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously presented) A compound of the formula:



or pharmaceutically acceptable salts or esters thereof;

wherein X is -(C=O)-, -(C=S)-, or -(C=N-Z), wherein Z [[=]] is R_{20} or $-OR_{20}$;

T is NR_{20};

wherein each R_{20} is independently H, -CN, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_1-C_6 haloalkyl or C_4-C_7 cycloalkyl, with the proviso that when Z is R_{20} or $-OR_{20}$, R_{20} is not -CN;

wherein R_1 is $-(CH_2)_{1-2}$-S(O)$_{0-2}$-(C_1-C_6 alkyl), or

C_1-C_{10} alkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, =O, -SH, -C≡N, $-CF_3$, -C_1-C_3 alkoxy, amino, mono or dialkylamino, -N(R)C(O)R'-, -OC(=O)-amino and -OC(=O)-mono- or dialkylamino, or

C_2-C_6 alkenyl or C_2-C_6 alkynyl, each of which is optionally substituted with 1, 2, or 3 groups independently

selected from halogen, -OH, -SH, -C≡N, $-CF_3$, C_1-C_3 alkoxy, amino, and mono- or dialkylamino, or

aryl, heteroaryl, heterocyclyl, -C_1-C_6 alkyl-aryl, -C_1-C_6 alkyl-heteroaryl, or -C_1-C_6 alkyl-heterocyclyl, where the ring portions of each are optionally substituted with 1, 2, 3, or 4 groups independently selected from halogen, -OH, -SH, -C≡N, $-NR_{105}R'_{105}$, $-CO_2R$, -N(R)COR', $-N(R)SO_2R'$, -C(=O)-(C_1-C_4) alkyl, $-SO_2$-amino, $-SO_2$-mono or dialkylamino, -C(=O)-amino, -C(=O)-mono or dialkylamino, $-SO_2$-(C_1-C_4) alkyl, or

C_1-C_6 alkoxy optionally substituted with 1, 2, or 3 halogens, or

C_3-C_7 cycloalkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, -SH, -C≡N, $-CF_3$, C_1-C_3 alkoxy, amino, -C_1-C_6 alkyl and mono- or dialkylamino, or

C_1-C_{10} alkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, -SH, -C≡N, $-CF_3$, -C_1-C_3 alkoxy, amino, mono- or dialkylamino and -C_1-C_3 alkyl, or

C_2-C_{10} alkenyl or C_2-C_{10} alkynyl each of which is optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, -SH,

-C≡N, -CF_3, C_1-C_3 alkoxy, amino, C_1-C_6 alkyl and mono- or dialkylamino; and the heterocyclyl group is optionally further substituted with oxo;

R and R′ independently are hydrogen, C_1-C_{10} alkyl, C_1-C_{10} alkylaryl or C_1-C_{10} alkylheteroaryl;

wherein Rc is

(I) $-[-(CH_2)_{(0-8)}-(CH)(alkyl_1)(alkyl_2)]$, where $alkyl_1$ and $alkyl_2$ are straight or branched C_{2-10} alkanyl, alkenyl or alkynyl, and wherein $alkyl_1$ and $alkyl_2$ attach to the same or different methylene carbon with the remaining open methylene valences occupied by hydrogen, thus forming a branched alkyl chain having between 8 and 20 carbon atoms in total;

the alkyl groups, $alkyl_1$ and $alkyl_2$ being optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, halogen, -OH, -SH, -C≡N, -CF_3, C_1-C_3 alkoxy, -O-phenyl, -C(O)C_1-C_3 alkyl, -$NR_{1-a}R_{1-b}$ where R_{1-a} and R_{1-b} are -H or C_1-C_6 alkyl, -OC=O $NR_{1-a}R_{1-b}$, $-S(=O)_{0-2}$, -NR_{1-a}C=O $NR_{1-a}R_{1-b}$, -C=O $NR_{1-a}R_{1-b}$, and $-S(=O)_2$ $NR_{1-a}R_{1-b}$;

(II) $-(C(Rc\text{-}x)(Rc\text{-}y))_{(0-4)}$-Rc-cycle

wherein each Rc-x and Rc-y is independently selected from:

H

C_1 - C_6 alkyl

C_1 - C_6 alkoxy

C_2-C_6 alkenyl or alkynyl

-$(CH_2)_{0-4}$-Rc-cycle where Rc-cycle is as defined below

or Rc-x and Rc-y may be taken together with the methylene carbon to which they jointly attach to form a spirocyclic ring of 3 to 7 atoms comprising carbon and up to 2 of O, $S(O)_{(0-2)}$ and $NR_{a'}$, wherein $R_{a'}$ is H or C_{1-4} alkyl;

wherein the spirocyclic ring may be fused to another ring to provide a bicyclic ring system comprising carbon and up to 2 of O, $S(O)_{(0-2)}$ and $NR_{a'}$. and comprising up to 9 atoms in total including,

Rc-cycle is aryl, heteroaryl, cycloalkyl or a fused-ring system consisting of no more than three rings where each of the rings is the same or different and is an aryl, heteroaryl, or cycloalkyl ring

wherein Rc-cycle is optionally substituted with up to four substituents independently selected from:

(1) C_1-C_6 alkyl optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, halogen, -OH, -SH, -C≡N, $-CF_3$, C_1-C_3 alkoxy, and $-NR_{1-a}R_{1-b}$,

(2) C_2-C_6 alkenyl or alkynyl with one or two unsaturated bonds, optionally substituted with one, two or three substituents selected from the group consisting of -F, -Cl, -OH, -SH, -C≡N, $-CF_3$, C_1-C_3 alkoxy, and $-NR_{1-a}R_{1-b}$,

(3) halogen,

(4) C_1-C_6 alkoxy,

(5) -C_1-C_6 alkoxy optionally substituted with one, two, or three of -F,

(6) -$NR_{N-6}R_{N-7}$ where R_{N-6} and R_{N-7} are the same or different and are selected from the group consisting of:

(a) -H,

(b) -C_1-C_6 alkyl optionally substituted with one substitutent selected from the group consisting of:

(i) -OH, and

(ii) -NH_2,

(c) -C_1-C_6 alkyl optionally substituted with one to three -F, -Cl, -Br, or -I,

(d) -C_3-C_7 cycloalkyl,

(e) -(C_1-C_2 alkyl)-(C_3-C_7 cycloalkyl),

(f) -(C_1-C_6 alkyl)-O-(C_1-C_3 alkyl),

(g) -C_2-C_6 alkenyl with one or two double bonds,

(h) -C_2-C_6 alkynyl with one or two triple bonds,

(i) -C_1-C_6 alkyl chain with one double bond and one triple bond,

(j) aryl, and

(k) heteroaryl,

(7) -OH,

(8) -C≡N,

(9) C_3-C_7 cycloalkyl, optionally substituted with one, two or three substituents selected from the group consisting of -F, -Cl, -OH, -SH, -C≡N, -CF_3, C_1-C_3 alkoxy, and -$NR_{1-a}R_{1-b}$,

(10) -CO-(C_1-C_4 alkyl),

(11) -SO_2-$NR_{1-a}R_{1-b}$,

(12) -CO-$NR_{1-a}R_{1-b}$,

(13) -SO_2-(C_1-C_4 alkyl),

and when there is a saturated carbon atom in Rc-cycle

(14) oxo,

(15) oxime

(16) ketal rings of 5 to 7 members, and

(17) a spirocyclic ring having from 3 to 7 atoms comprising carbon and when the ring size is 4-7 atoms optionally up to 2 of O, $S(O)_{(0-2)}$ and NR_a,

(III) -$(CR_{C-x}R_{C-y})_{0-4}$-aryl-aryl ,

(IV) -$(CR_{C-x}R_{C-y})_{0-4}$-aryl-heteroaryl,

(V) -$(CR_{C-x}R_{C-y})_{0-4}$- heteroaryl-aryl,

(VI) -$(CR_{C-x}R_{C-y})_{0-4}$- heteroaryl-heteroaryl,

(VII) -$(CR_{C-x}R_{C-y})_{0-4}$- aryl-heterocycle,

(VIII) -$(CR_{C-x}R_{C-y})_{0-4}$-heteroaryl-heterocycle,

(IX) -$(CR_{C-x}R_{C-y})_{0-4}$-heterocycle-aryl,

(X) -$(CR_{C-x}R_{C-y})_{0-4}$-heterocycle-heteroaryl,

(XI) -$(CR_{C-x}R_{C-y})_{0-4}$- heterocycle-heterocycle,

(XII) $-[C(R_{C-1})(R_{C-2})]_{1-3}-[CO]_{0-1}-N-(R_{C-3})_2$ where each R_{C-1} is the same or different and is selected from the group consisting of H, C_{1-4} alkyl and C_{1-4} alkoxy,

where each R_{C-2} and R_{C-3} is independently selected from

(A) $-C_1-C_6$ alkyl optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, $-CF_3$, C_1-C_6 alkoxy, -O- phenyl, and $-NR_{1-a}R_{1-b}$,

(B) C_2-C_6 alkenyl or alkynyl with one or two unsaturated bonds, optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, $-CF_3$, C_1-C_6 alkoxy, -O- phenyl, and $-NR_{1-a}R_{1-b}$,

(C) $-(CH_2)_{1-2}-S(O)_{0-2}-(C_1-C_6$ alkyl),

(D) $-(CH_2)_{0-4}-C_3-C_7$ cycloalkyl optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, $-CF_3$, C_1-C_6 alkoxy, -O- phenyl, and $-NR_{1-a}R_{1-b}$,

(E) $-(CH_2)_{0-4}$-5-7 membered heterocycle optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, $-CF_3$, C_1-C_6 alkoxy, -O- phenyl, oxo, and $-NR_{1-a}R_{1-b}$,

(XIII) $-CH(aryl)_2$ where each aryl is the same or different,

(XIV) -CH(heteroaryl)$_2$ where each heteroaryl is the same or different and are as defined above,

(XVIII) -CH(aryl)(heteroaryl);

wherein R_N is R'_{100}, -$(CRR')_{1-6}R'_{100}$, -$(CRR')_{0-6}R_{100}$, -$(CRR')_{1-6}$-O-R'_{100}, -$(CRR')_{1-6}$-S-R'_{100}, -$(CRR')_{1-6}$-C(=O)-R_{100}, -$(CRR')_{1-6}$-SO_2-R_{100}, -$(CRR')_{1-6}$-NR_{100}-R'_{100} or -$SO_2R'_{100}$, with the proviso that when R_N is -$SO_2R'_{100}$, X is not -$S(=O)_n$- or -C(=S)-; wherein R_{100} and R'_{100} are independently aryl, heteroaryl, -aryl-W-aryl, -aryl-W-heteroaryl, -aryl-W-heterocyclyl, -heteroaryl-W-aryl, -heteroaryl-W-heteroaryl, -heteroaryl-W-heterocyclyl, -heterocyclyl-W-aryl, -heterocyclyl-W-heteroaryl, -heterocyclyl-W-heterocyclyl, -CH[$(CH_2)_{0-2}$-O-R_{150}]-$(CH_2)_{0-2}$-aryl, -CH[$(CH_2)_{0-2}$-O-R_{150}]-$(CH_2)_{0-2}$-heterocyclyl or -CH[$(CH_2)_{0-2}$-O-R_{150}]-$(CH_2)_{0-2}$-heteroaryl, where the ring portions of each are optionally substituted with 1, 2, or 3 groups independently selected from

-OR, -NO_2, halogen, -C≡N, -OCF_3, -CF_3, -$(CH_2)_{0-4}$-O-P(=O)(OR)(OR'), -$(CH_2)_{0-4}$-CO-$NR_{105}R'_{105}$, -$(CH_2)_{0-4}$-O-$(CH_2)_{0-4}$-$CONR_{102}R_{102}'$, -$(CH_2)_{0-4}$-CO-(C_1-C_{12} alkyl), -$(CH_2)_{0-4}$-CO-(C_2-C_{12} alkenyl), -$(CH_2)_{0-4}$-CO-(C_2-C_{12} alkynyl), -$(CH_2)_{0-4}$-CO-$(CH_2)_{0-4}$(C_3-C_7 cycloalkyl), -$(CH_2)_{0-4}$-R_{110}, -$(CH_2)_{0-4}$-R_{120}, -$(CH_2)_{0-4}$-R_{130}, -$(CH_2)_{0-4}$-CO-R_{110}, -$(CH_2)_{0-4}$-CO-R_{120}, -$(CH_2)_{0-4}$-CO-R_{130}, -$(CH_2)_{0-4}$-CO-R_{140}, -$(CH_2)_{0-4}$-CO-O-R_{150},

$-(CH_2)_{0-4}-SO_2-NR_{105}R'_{105}$, $-(CH_2)_{0-4}-SO-(C_1-C_8$ alkyl), $-(CH_2)_{0-4}-SO_2-(C_1-C_{12}$ alkyl), $-(CH_2)_{0-4}-SO_2-(CH_2)_{0-4}-(C_3-C_7$ cycloalkyl), $-(CH_2)_{0-4}-N(R_{150})-CO-O-R_{150}$, $-(CH_2)_{0-4}-N(R_{150})-CO-N(R_{150})_2$, $-(CH_2)_{0-4}-N(R_{150})-CS-N(R_{150})_2$, $-(CH_2)_{0-4}-N(R_{150})-CO-R_{105}$, $-(CH_2)_{0-4}-NR_{105}R'_{105}$, $-(CH_2)_{0-4}-R_{140}$, $-(CH_2)_{0-4}-O-CO-(C_1-C_6$ alkyl), $-(CH_2)_{0-4}-O-P(O)-(O-R_{110})_2$, $-(CH_2)_{0-4}-O-CO-N(R_{150})_2$, $-(CH_2)_{0-4}-O-CS-N(R_{150})_2$, $-(CH_2)_{0-4}-O-(R_{150})$, $-(CH_2)_{0-4}-O-R_{150}'-COOH$, $-(CH_2)_{0-4}-S-(R_{150})$, $-(CH_2)_{0-4}-N(R_{150})-SO_2-R_{105}$, $-(CH_2)_{0-4}-C_3-C_7$ cycloalkyl, (C_2-C_{10})alkenyl, and (C_2-C_{10})alkynyl, or

R_{100} is C_1-C_{10} alkyl optionally substituted with 1, 2, or 3 R_{115} groups, or

R_{100} is $-(C_1-C_6$ alkyl$)-O-C_1-C_6$ alkyl) or $-(C_1-C_6$ alkyl$)-S-(C_1-C_6$ alkyl), each C_1-C_6 alkyl is optionally substituted with 1, 2, or 3 R_{115} groups, or

R_{100} is C_3-C_8 cycloalkyl optionally substituted with 1, 2, or 3 R_{115} groups;

W is a bond, $-(CH_2)_{1-4}-$, $-O-$, $-S(O)_{0-2}-$, $-N(R_{135})-$, $-CR(OH)-$ or $-C(O)-$;

R_{102} and R_{102}' independently are hydrogen, or

C_1-C_{10} alkyl optionally substituted with 1, 2, or 3 groups that are independently halogen, aryl or $-R_{110}$;

R_{105} and R'_{105} independently are -H, $-R_{110}$, $-R_{120}$, C_3-C_7 cycloalkyl, -(C_1-C_2 alkyl)-(C_3-C_7 cycloalkyl), -(C_1-C_6 alkyl)-O-(C_1-C_3 alkyl), C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 alkyl chain with one double bond and one triple bond,

C_1-C_6 alkyl optionally substituted with -OH or $-NH_2$, or

C_1-C_6 alkyl optionally substituted with 1, 2, or 3 halogens, or

R_{105} and R'_{105} together with the atom to which they are attached form a 3 to 7 membered carbocylic ring, where one member is optionally a heteratom selected from -O-, $-S(O)_{0-2}$-, $-N(R_{135})$-, the ring being optionally substituted with 1, 2 or three R_{140} groups;

R_{115} at each occurrence is independently halogen, -OH, $-CO_2R_{102}$, -C_1-C_6 thioalkoxy, $-CO_2$-phenyl, $-NR_{105}R'_{135}$, $-SO_2$-(C_1-C_8 alkyl), $-C(=O)R_{180}$, R_{180}, $-CONR_{105}R'_{105}$, $-SO_2NR_{105}R'_{105}$, -NH-CO-(C_1-C_6 alkyl), -NH-C(=O)-OH, -NH-C(=O)-OR, -NH-C(=O)-O-phenyl, -O-C(=O)-(C_1-C_6 alkyl), -O-C(=O)-amino, -O-C(=O)-mono- or dialkylamino, -O-C(=O)-phenyl, -O-(C_1-C_6 alkyl)-CO_2H, -NH-SO_2-(C_1-C_6 alkyl), C_1-C_6 alkoxy or C_1-C_6 haloalkoxy;

R_{135} is C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_3-C_7 cycloalkyl, $-(CH_2)_{0-2}$-(aryl), $-(CH_2)_{0-2}$-(heteroaryl), or $-(CH_2)_{0-2}$-(heterocyclyl);

R_{140} is heterocyclyl optionally substituted with 1, 2, 3, or 4 groups independently selected from C_1-C_6 alkyl, C_1-C_6 alkoxy, halogen, hydroxy, cyano, nitro, amino, mono(C_1-C_6)alkylamino, di(C_1-C_6)alkylamino, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 haloalkyl, C_1-C_6 haloalkoxy, amino(C_1-C_6)alkyl, mono(C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, and =O;

R_{150} is hydrogen, C_3-C_7 cycloalkyl, -(C_1-C_2 alkyl)-(C_3-C_7 cycloalkyl), C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 alkyl with one double bond and one triple bond, -R_{110}, -R_{120}, or

C_1-C_6 alkyl optionally substituted with 1, 2, 3, or 4 groups independently selected from -OH, -NH_2, C_1-C_3 alkoxy, R_{110}, and halogen;

R_{150}' is C_3-C_7 cycloalkyl, -(C_1-C_3 alkyl)-(C_3-C_7 cycloalkyl), C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 alkyl with one double bond and one triple bond, -R_{110}, -R_{120}, or

C_1-C_6 alkyl optionally substituted with 1, 2, 3, or 4 groups independently selected from -OH, -NH_2, C_1-C_3 alkoxy, R_{110}, and halogen;

R_{180} is selected from morpholinyl, thiomorpholinyl, piperazinyl, piperidinyl, homomorpholinyl, homothiomorpholinyl, homothiomorpholinyl S-oxide, homothiomorpholinyl S,S-dioxide, pyrrolinyl and pyrrolidinyl, each of which is

optionally substituted with 1, 2, 3, or 4 groups independently selected from C_1-C_6 alkyl, C_1-C_6 alkoxy, halogen, hydroxy, cyano, nitro, amino, mono(C_1-C_6)alkylamino, di(C_1-C_6)alkylamino, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 haloalkyl, C_1-C_6 haloalkoxy, amino(C_1-C_6)alkyl, mono(C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, and =O;

R_{110} is aryl optionally substituted with 1 or 2 R_{125} groups;

R_{125} at each occurrence is independently halogen, amino, mono- or dialkylamino, -OH, -C≡N, -SO_2-NH_2, -SO_2-NH-C_1-C_6 alkyl, -SO_2-N(C_1-C_6 alkyl)$_2$, -SO_2-(C_1-C_4 alkyl), -CO-NH_2, -CO-NH-C_1-C_6 alkyl, or -CO-N(C_1-C_6 alkyl)$_2$, or

C_1-C_6 alkyl, C_2-C_6 alkenyl or C_2-C_6 alkynyl, wherein each C_1-C_6 alkyl, C_2-C_6 alkenyl or C_2-C_6 alkynyl is optionally substituted with 1, 2, or 3 groups that are independently selected from C_1-C_3 alkyl, halogen, -OH, -SH, -C≡N, -CF_3, C_1-C_3 alkoxy, amino, and mono- and dialkylamino, or

C_1-C_6 alkoxy optionally substituted with one, two or three halogens;

R_{120} is heteroaryl optionally substituted with 1 or 2 R_{125} groups; and

R_{130} is heterocyclyl optionally substituted with 1 or 2 R_{125} groups;

R_2 is selected from the group consisting of H; C_1-C_6 alkyl optionally substituted with 1, 2, or 3 substituents independently selected from the group consisting of C_1-C_3 alkyl, halogen, -OH, -SH, -C≡N, $-CF_3$, C_1-C_3 alkoxy, and $-NR_{1-a}R_{1-b}$; wherein R_{1-a} and R_{1-b} are -H or C_1-C_6 alkyl; $-(CH_2)_{0-4}$-aryl; $-(CH_2)_{0-4}$-heteroaryl; C_2-C_6 alkenyl; C_2-C_6 alkynyl; $-CONR_{N-2}R_{N-3}$; $-SO_2NR_{N-2}R_{N-3}$; $-CO_2H$; and $-CO_2-(C_1$-C_4 alkyl);

R_3 is selected from the group consisting of H; C_1-C_6 alkyl optionally substituted with 1, 2, or 3 substituents independently selected from the group consisting of C_1-C_3 alkyl, halogen, -OH, -SH, -C≡N, $-CF_3$, C_1-C_3 alkoxy, and $-NR_{1-a}R_{1-b}$; $-(CH_2)_{0-4}$-aryl; $-(CH_2)_{0-4}$-heteroaryl; C_2-C_6 alkenyl; C_2-C_6 alkynyl; $-CO-NR_{N-2}R_{N-3}$; $-SO_2-NR_{N-2}R_{N-3}$; $-CO_2H$; and $-CO-O-(C_1$-C_4 alkyl);

wherein

R_{N-2} and R_{N-3} at each occurrence are independently selected from the group consisting of $-C_1$-C_8 alkyl optionally substituted with 1, 2, or 3 groups independently selected from the group consisting of -OH, $-NH_2$, phenyl and halogen; $-C_3$-C_8 cycloalkyl; $-(C_1$-C_2 alkyl)-(C_3-C_8 cycloalkyl); $-(C_1$-C_6 alkyl)-O-(C_1-C_3

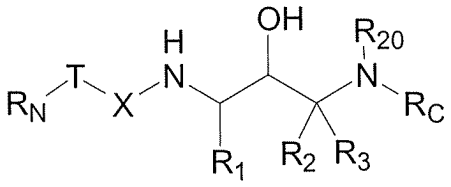
alkyl); -C_2-C_6 alkenyl; -C_2-C_6 alkynyl; -C_1-C_6 alkyl chain with one double bond and one triple bond; aryl; heteroaryl; and heterocycloalkyl; or

R_{N-2}, R_{N-3} and the nitrogen to which they are attached form a 5, 6, or 7 membered heterocycloalkyl or heteroaryl group, wherein said heterocycloalkyl or heteroaryl group is optionally fused to a benzene, pyridine, or pyrimidine ring, and said groups are unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that at each occurrence are independently C_1-C_6 alkyl, C_1-C_6 alkoxy, halogen, halo C_1-C_6 alkyl, halo C_1-C_6 alkoxy, -CN, -NO_2, -NH_2, NH(C_1-C_6 alkyl), N(C_1-C_6 alkyl)(C_1-C_6 alkyl), -OH, -C(O)NH_2, -C(O)NH(C_1-C_6 alkyl), -C(O)N(C_1-C_6 alkyl)(C_1-C_6 alkyl), C_1-C_6 alkoxy C_1-C_6 alkyl, C_1-C_6 thioalkoxy, and C_1-C_6 thioalkoxy C_1-C_6 alkyl; or

R_2, R_3 and the carbon to which they are attached form a carbocycle of three thru seven carbon atoms, wherein one carbon atom is optionally replaced by a group selected from -O-, -S-, -SO_2-, or -NR_{N-2}-.

2. (Canceled)

3. (Original) A compound according to claim 1 of the formula



or a pharmaceutically acceptable salt or ester thereof wherein

R_C is selected from $-(CH_2)_{0-3}-(C_3-C_8)$ cycloalkyl wherein the cycloalkyl is optionally substituted with 1, 2, or 3 groups independently selected from $-R_{205}$; and $-CO_2-(C_1-C_4$ alkyl); $-(CR_{245}R_{250})_{0-4}$-aryl; $-(CR_{245}R_{250})_{0-4}$-heteroaryl; $-(CR_{245}R_{250})_{0-4}$-heterocycloalkyl; $-(CR_{245}R_{250})_{0-4}$-aryl-heteroaryl; $-(CR_{245}R_{250})_{0-4}$-aryl-heterocycloalkyl; $-(CR_{245}R_{250})_{0-4}$-aryl-aryl; $-(CR_{245}R_{250})_{0-4}$-heteroaryl-aryl; $-(CR_{245}R_{250})_{0-4}$-heteroaryl-heterocycloalkyl; $-(CR_{245}R_{250})_{0-4}$-heteroaryl-heteroaryl; $-CHR_{245}-CHR_{250}$-aryl; $-(CR_{245}R_{250})_{0-4}$-heterocycloalkyl-heteroaryl; $-(CR_{245}R_{250})_{0-4}$-heterocycloalkyl-heterocycloalkyl; $-(CR_{245}R_{250})_{0-4}$-heterocycloalkyl-aryl; a monocyclic or bicyclic ring of 5, 6, 7 8, 9, or 10 carbons fused to 1 or 2 aryl, heteroaryl, or heterocycloalkyl groups;

wherein 1, 2 or 3 carbons of the monocyclic or bicyclic ring are optionally replaced with $-NH-$, $-N(CO)_{0-1}R_{215}-$, $-N(CO)_{0-1}R_{220}-$, $-O-$, or $-S(=O)_{0-2}-$, and wherein the monocyclic or bicyclic ring is optionally substituted with 1, 2 or 3 groups that are independently $-R_{205}$, $-R_{245}$, $-R_{250}$ or $=O$;

and $-C_2-C_6$ alkenyl optionally substituted with 1, 2, or 3 R_{205} groups;

wherein each aryl or heteroaryl group attached directly or indirectly to the $-(CR_{245}R_{250})_{0-4}$ group is optionally substituted with 1, 2, 3 or 4 R_{200} groups;

wherein each heterocycloalkyl attached directly or indirectly to the $-(CR_{245}R_{250})_{0-4}$ group is optionally substituted with 1, 2, 3, or 4 R_{210};

R_{200} at each occurrence is independently selected from $-C_1-C_6$ alkyl optionally substituted with 1, 2, or 3 R_{205} groups; -OH; $-NO_2$; -halogen; $-C\equiv N$; $-(CH_2)_{0-4}-CO-NR_{220}R_{225}$; $-(CH_2)_{0-4}-CO-(C_1-C_8$ alkyl); $-(CH_2)_{0-4}-CO-(C_2-C_8$ alkenyl); $-(CH_2)_{0-4}-CO-(C_2-C_8$ alkynyl); $-(CH_2)_{0-4}-CO-(C_3-C_7$ cycloalkyl); $-(CH_2)_{0-4}-(CO)_{0-1}-$aryl; $-(CH_2)_{0-4}-(CO)_{0-1}-$heteroaryl; $-(CH_2)_{0-4}-(CO)_{0-1}-$heterocycloalkyl; $-(CH_2)_{0-4}-CO_2R_{215}$; $-(CH_2)_{0-4}-SO_2-NR_{220}R_{225}$; $-(CH_2)_{0-4}-S(O)_{0-2}-(C_1-C_8$ alkyl); $-(CH_2)_{0-4}-S(O)_{0-2}-(C_3-C_7$ cycloalkyl); $-(CH_2)_{0-4}-N(H$ or $R_{215})-CO_2R_{215}$; $-(CH_2)_{0-4}-N(H$ or $R_{215})-SO_2-R_{220}$; $-(CH_2)_{0-4}-N(H$ or $R_{215})-CO-N(R_{215})_2$; $-(CH_2)_{0-4}-N(-H$ or $R_{215})-CO-R_{220}$; $-(CH_2)_{0-4}-NR_{220}R_{225}$; $-(CH_2)_{0-4}-O-CO-(C_1-C_6$ alkyl); $-(CH_2)_{0-4}-O-(R_{215})$; $-(CH_2)_{0-4}-S-(R_{215})$; $-(CH_2)_{0-4}-O-(C_1-C_6$ alkyl optionally substituted with 1, 2, 3, or 5 -F); $-C_2-C_6$ alkenyl optionally substituted with 1 or 2 R_{205} groups; $-C_2-C_6$ alkynyl optionally

substituted with 1 or 2 R_{205} groups; adamantly, and $-(CH_2)_{0-4}-$ C_3-C_7 cycloalkyl;

each aryl and heteroaryl group included within R_{200} is optionally substituted with 1, 2, or 3 groups that are independently $-R_{205}$, $-R_{210}$ or $-C_1$-C_6 alkyl substituted with 1, 2, or 3 groups that are independently R_{205} or R_{210};

each heterocycloalkyl group included within R_{200} is optionally substituted with 1, 2, or 3 groups that are independently R_{210};

R_{205} at each occurrence is independently selected from $-C_1$-C_6 alkyl, $-C_2$-C_6 alkenyl, $-C_2$-C_6 alkynyl, $-C_1$-C_6 haloalkoxy, $-(CH_2)_{0-3}(C_3$-C_7 cycloalkyl), -halogen, $-(CH_2)_{0-6}$-OH, -O-phenyl, OH, SH, $-(CH_2)_{0-6}-C\equiv N$, $-(CH_2)_{0-6}-C(=O)NR_{235}R_{240}$, $-CF_3$, $-C_1$-C_6 alkoxy, C_1-C_6 alkoxycarbonyl, and $-NR_{235}R_{240}$;

R_{210} at each occurrence is independently selected from $-C_1$-C_6 alkyl optionally substituted with 1, 2, or 3 R_{205} groups; $-C_2$-C_6 alkenyl optionally substituted with 1, 2, or 3 R_{205} groups; C_1-C_6 alkanoyl; $-SO_2-(C_1$-C_6 alkyl); $-C_2$-C_6 alkynyl optionally substituted with 1, 2, or 3 R_{205} groups; -halogen; $-C_1$-C_6 alkoxy; $-C_1$-C_6 haloalkoxy; $-NR_{220}R_{225}$; -OH; $-C\equiv N$; $-C_3$-C_7 cycloalkyl optionally

substituted with 1, 2, or 3 R_{205} groups; -CO-(C_1-C_4 alkyl); -SO_2-$NR_{235}R_{240}$; -CO-$NR_{235}R_{240}$; -SO_2-(C_1-C_4 alkyl); and =O;

R_{215} at each occurrence is independently selected from -C_1-C_6 alkyl, -$(CH_2)_{0-2}$-(aryl), -C_2-C_6 alkenyl,--C_2-C_6 alkynyl, -C_3-C_7 cycloalkyl, -$(CH_2)_{0-2}$-(heteroaryl), and -$(CH_2)_{0-2}$-(heterocycloalkyl); wherein the aryl group included within R_{215} is optionally substituted with 1, 2, or 3 groups that are independently -R_{205} or -R_{210}; wherein the heterocycloalkyl and heteroaryl groups included within R_{215} are optionally substituted with 1, 2, or 3 R_{210};

R_{220} at each occurrence is independently H, -C_1-C_6 alkyl, -CHO, hydroxy C_1-C_6 alkyl, C_1-C_6 alkoxycarbonyl, -amino C_1-C_6 alkyl, -SO_2-C_1-C_6 alkyl, C_1-C_6 alkanoyl optionally substituted with up to three halogens, -C(O)NH_2, -C(O)NH(C_1-C_6 alkyl), -C(O)N(C_1-C_6 alkyl)(C_1-C_6 alkyl), -halo C_1-C_6 alkyl, -$(CH_2)_{0-2}$-(C_3-C_7 cycloalkyl), -(C_1-C_6 alkyl)-O-(C_1-C_3 alkyl), -C_2-C_6 alkenyl, -C_2-C_6 alkynyl, -aryl, -heteroaryl, or -heterocycloalkyl; wherein the aryl, heteroaryl and heterocycloalkyl groups included within R_{220}

and R_{225} is optionally substituted with 1, 2, or 3 R_{270} groups,

R_{270} at each occurrence is independently $-R_{205}$, $-C_1$-C_6 alkyl optionally substituted with 1, 2, or 3 R_{205} groups; $-C_2$-C_6 alkenyl optionally substituted with 1, 2, or 3 R_{205} groups; $-C_2$-C_6 alkynyl optionally substituted with 1, 2, or 3 R_{205} groups; -phenyl; -halogen; $-C_1$-C_6 alkoxy; $-C_1$-C_6 haloalkoxy; $-NR_{235}R_{240}$; -OH; $-C\equiv N$; $-C_3$-C_7 cycloalkyl optionally substituted with 1, 2, or 3 R_{205} groups; -CO-(C_1-C_4 alkyl); $-SO_2-NR_{235}R_{240}$; $-CO-NR_{235}R_{240}$; $-SO_2-(C_1$-C_4 alkyl); and =O;

R_{235} and R_{240} at each occurrence are independently -H, $-C_1$-C_6 alkyl, C_2-C_6 alkanoyl, $-SO_2-(C_1$-C_6 alkyl), or -phenyl;

R_{245} and R_{250} at each occurrence are independently selected from H, $-(CH_2)_{0-4}CO_2C_1$-C_4 alkyl, $-(CH_2)_{0-4}C(=O)C_1$-C_4 alkyl, $-C_1$-C_4 alkyl, $-C_1$-C_4 hydroxyalkyl, $-C_1$-C_4 alkoxy, $-C_1$-C_4 haloalkoxy, $-(CH_2)_{0-4}$-C_3-C_7 cycloalkyl, $-C_2$-C_6 alkenyl, $-C_2$-C_6 alkynyl, $-(CH_2)_{0-4}$ aryl, $-(CH_2)_{0-4}$ heteroaryl, and $-(CH_2)_{0-4}$ heterocycloalkyl, or R_{245} and R_{250} are taken together with the carbon to which they are attached to form a monocycle or bicycle of 3, 4, 5, 6, 7 or 8 carbon atoms, where 1, 2, or 3 carbon atoms are optionally

replaced by 1, 2, or 3 gropus that are independently -O-, -S-, $-SO_2-$, -C(O)-, $-NR_{220}-$, or $-NR_{220}R_{220}-$ wherein both R_{220} groups are alkyl; and wherein the ring is optionally substituted with 1, 2, 3, 4, 5, or 6 groups that are independently C_1-C_4 alkyl, C_1-C_4 alkoxy, hydroxyl, NH_2, NH(C_1-C_6 alkyl), N(C_1-C_6 alkyl)(C_1-C_6 alkyl), -NH-C(O)C_1-C_5 alkyl, $-NH-SO_2-(C_1-C_6$ alkyl), or halogen;

wherein the aryl, heteroaryl or heterocycloalkyl groups included within R_{245} and R_{250} are optionally substituted with 1, 2, or 3 groups that are independenly halogen, C_{1-6} alkyl, CN or OH.

4. (Original) A compound according to claim 3, wherein R_1 is C_1-C_{10} alkyl optionally substituted with 1 or 2 groups independently selected from halogen, -OH, =O, -CN, $-CF_3$, $-OCF_3$, $-C_3$-C_7 cycloalkyl, $-C_1$-C_4 alkoxy, amino, mono-dialkylamino, aryl, heteroaryl or heterocycloalkyl, wherein the aryl group is optionally substituted with 1 or 2 R_{50} groups;

R_{50} is halogen, OH, CN, -CO-(C_1-C_4 alkyl), $-NR_7R_8$, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_1-C_6 alkoxy, and C_3-C_8 cycloalkyl;

R_7 and R_8 are selected from H; $-C_1$-C_4 alkyl optionally substituted with 1, 2, or 3 groups selected from

-OH, $-NH_2$ and halogen; $-C_3-C_6$ cycloalkyl; $-(C_1-C_4$ alkyl)$-O-(C_1-C_4$ alkyl); $-C_2-C_4$ alkenyl; and $-C_2-C_4$ alkynyl;

R_C is selected from $-(CR_{245}R_{250})_{0-4}$-aryl; $-(CR_{245}R_{250})_{0-4}$-heteroaryl; $-(CR_{245}R_{250})_{0-4}$-heterocycloalkyl; where the aryl and heteroaryl groups attached to the $-(CR_{245}R_{250})_{0-4}-$ group are optionally substituted with 1, 2, 3 or 4 R_{200} groups; where the heterocycloalkyl group attached to the $-(CR_{245}R_{250})_{0-4}$ group is optionally substituted with 1, 2, 3, or 4 R_{210} groups; and

R_{245} R_{250}, R_{200}, and R_{210} are as defined above.

5. (Original) A compound according to claim4, wherein R_C is $-(CR_{245}R_{250})_{0-4}$-heterocycloalkyl; where the heterocycloalkyl group attached to the $-(CR_{245}R_{250})_{0-4}-$ group is optionally substituted with 1, 2, 3, or 4 R_{210} groups, wherein R_{245}, R_{250}, and R_{210} are as defined above.

6 (Original) A compound according to claim 5, wherein R_1 is C_1-C_{10} alkyl substituted with one aryl group, where the aryl group is optionally substituted with 1 or 2 R_{50} groups;

R_C is $-(CR_{245}R_{250})_{1-4}$-aryl or $-(CR_{245}R_{250})_{1-4}$-heteroaryl,

R_{245} and R_{250} are independently selected from H, $-(CH_2)_{0-4}CO_2C_1-C_4$ alkyl, $-(CH_2)_{0-4}CO_2H$, $-C_1-C_4$ alkyl, $-(C_1-C_4$ alkyl)OH, or

R_{245}, R_{250} and the carbon to which they are attached form a monocycle or bicycle of 3, 4, 5, 6, 7 or 8 carbon atoms, where 1 or 2 carbon atoms are optionally replaced by -O-, -S-, -SO_2-, or -NR_{220}-, where R_{220} is as defined above; and

wherein the aryl and heteroaryl groups attached to the -$(CR_{245}R_{250})_{1-4}$- groups are optionally substituted with 1 or 2 R_{200} groups.

7. (Original) A compound according to claim 3, wherein

R_C is $(CR_{245}R_{250})_1$-aryl, where the aryl (preferably phenyl or naphthyl, more preferably phenyl) is optionally substituted with 1, 2, or 3 R_{200} groups; and

R_{245} is H and R_{250} is H or C_1-C_6 alkyl; or

R_{245} and R_{250} are independently C_1-C_3 alkyl (preferably both are methyl); or

$CR_{245}R_{250}$ represents a C_3-C_7 cycloalkyl group.

8. (Original) A compound according to claim 7, wherein the $(CR_{245}R_{250})_1$-aryl is $(CR_{245}R_{250})_1$-phenyl where the phenyl is optionally substituted with 1, 2, or 3 R_{200} groups.

9. (Original) A compound according to claim 8, wherein the phenyl in $(CR_{245}R_{250})_1$-phenyl is substituted with

1-3 independently selected R_{200} groups, or

1 or 2 independently selected R_{200} groups, and

1 heteroaryl group optionally substituted with 1 R_{200} group or 1 phenyl group optionally substituted with 1 R_{200} group.

10. (Original) A compound according to claim 8, wherein R_{245} is hydrogen and R_{250} is C_1-C_3 alkyl.

11. (Original) A compound according to claim 8, wherein R_{245} and R_{250} are both hydrogen.

12. (Previously presented) A compound according to claim 8, wherein the phenyl in $(CR_{245}R_{250})_1$-phenyl is substituted with

(a) 1 R_{200} group and 1 heteroaryl group, wherein the heteroaryl is optionally substituted with 1 R_{200} group; or

(b) 1 R_{200} group and 1 phenyl group, wherein the 1 phenyl group is optionally substituted with 1 R_{200} group; or

(c) 1 R_{200} group and 1 heterocycloalkyl group wherein the heterocycloalkyl group is optionally substituted with 1 R_{200} group or =O.

13. (Original) A compound according to claim 12, wherein $CR_{245}R_{250}$ represents a C_3-C_7 cycloalkyl group.

14. (Original) A compound according to claim 12, wherein $CR_{245}R_{250}$ represents a C_5-C_7 cycloalkyl group.

15. (Original) A compound according to claim 12, wherein $CR_{245}R_{250}$ represents a C_3-C_6 cycloalkyl group.

16. (Original) A compound according to claim 12, wherein $CR_{245}R_{250}$ represents a C_6 cycloalkyl.

17. (Previously presented) A compound according to claim 8, wherein the phenyl in $(CR_{245}R_{250})_1$-phenyl is substituted with

1 R_{200} group; or

1 R_{200} group and one heteroaryl group wherein the heteroaryl group is optionally substituted with

1 R_{200} group or

1 R_{200} group and 1 phenyl group wherein the 1 phenyl group is optionally substituted with one R_{200} group.

18. (Original) A compound according to claim 8, wherein the phenyl in $(CR_{245}R_{250})_1$-phenyl is substituted with 1 R_{200} group.

19. (Previously presented) A compound selected from the group consisting of:

methyl (3*S*)-3-{[(2*R*,3*S*)-3-[(anilinocarbonyl)amino]-4-(3,5-difluorophenyl)-2-hydroxybutyl]amino}-3-(3-bromophenyl)propanoate;

N-((1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-{[4-(3-ethylphenyl)tetrahydro-2*H*-pyran-4-yl]amino}-2-hydroxypropyl)-*N*'-phenylurea;

N-benzyl-*N*'-((1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-{[(4*R*)-6-ethyl-2,2-dioxido-3,4-dihydro-1*H*-isothiochromen-4-yl]amino}-2-hydroxypropyl)urea;

N-((1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-{[(4*R*)-6-ethyl-2,2-dioxido-3,4-dihydro-1*H*-isothiochromen-4-yl]amino}-2-hydroxypropyl)-*N*'-phenylurea;

N-((1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-{[(4*R*)-6-ethyl-2,2-dioxido-3,4-dihydro-1*H*-isothiochromen-4-yl]amino}-2-hydroxypropyl)-*N*'-propylurea;

N-(*sec*-butyl)-*N*'-((1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-{[(4*R*)-6-ethyl-2,2-dioxido-3,4-dihydro-1*H*-isothiochromen-4-yl]amino}-2-hydroxypropyl)urea;

N-{(1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-3,4-dihydro-2*H*-chromen-4-yl)amino]-2-hydroxypropyl}-*N*'-phenylurea;

N-{(1*S*,2*R*)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(6-isopropyl-3,4-dihydro-2*H*-chromen-4-yl)amino]propyl}-*N*'-

phenylurea;

N-[(1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-({6-[(dimethylamino)methyl]-3,4-dihydro-2*H*-chromen-4-yl}amino)-2-hydroxypropyl]-*N*'-phenylurea;

N-{(1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-[(6-ethyl-3,4-dihydro-1*H*-isochromen-4-yl)amino]-2-hydroxypropyl}-*N*'-phenylurea;

N-{(1*S*,2*R*)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(6-isopropyl-3,4-dihydro-1*H*-isochromen-4-yl)amino]propyl}-*N*'-phenylurea;

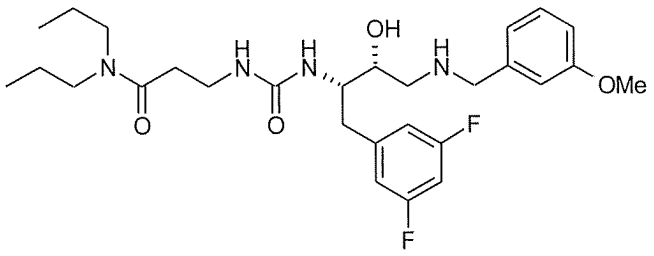
N-[(1*S*,2*R*)-1-(3,5-difluorobenzyl)-3-({6-[(dimethylamino)methyl]-3,4-dihydro-1*H*-isochromen-4-yl}amino)-2-hydroxypropyl]-*N*'-phenylurea;

N^3-[({(1*S*,2*R*)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(3-methoxybenzyl)amino]propyl}amino)carbonyl]-N^1,N^1-dipropyl-b-alaninamide; and

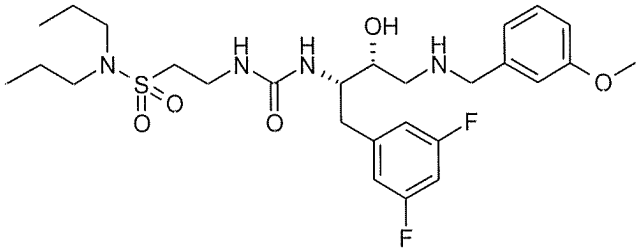
2-{[({(1*S*,2*R*)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(3-methoxybenzyl)amino]propyl}amino)carbonyl]amino}-*N*,*N*-dipropylethanesulfonamide.

20. (Canceled)

21. (Previously presented) A compound which has the formula:



or



or a pharmaceutically acceptable salt thereof.

22. (Withdrawn-currently amended) A method of treating a patient who has~~,~~ ~~or in preventing a patient from getting, a disease or condition selected from the group consisting of~~ Alzheimer's disease~~,~~ ~~for helping prevent or delay the onset of Alzheimer's disease, for treating patients with mild cognitive impairment (MCI) and preventing or delaying the onset of Alzheimer's disease in those who would progress from MCI to AD, for treating Down's syndrome, for treating humans who have Hereditary Cerebral Hemorrhage with Amyloidosis of the Dutch Type, for treating cerebral amyloid angiopathy and preventing its potential consequences,~~

~~i.e. single and recurrent lobar hemorrhages, for treating other degenerative dementias, including dementias of mixed vascular and degenerative origin, dementia associated with Parkinson's disease, dementia associated with progressive supranuclear palsy, dementia associated with cortical basal degeneration, diffuse Lewy body type of Alzheimer's disease and~~ who is in need of such treatment which comprises administration of a therapeutically effective amount of a compound ~~selected from the group consisting of a substituted aminoalcohol of the formula (I), or a pharmaceutically acceptable salt or ester thereof, wherein X, T, R_{20}, R_1, R_2, R_3, R_N and Rc are as defined in~~ of claim 1 or a pharmaceutically acceptable salt or ester thereof.

23. (Canceled)

24. (Previously presented) The compound according to claim 1 that is 3-(3-((2S,3R)-1-(3,5-difluorophenyl)-4-(1-(3-ethylphenyl)butylamino)-3-hydroxybutan-2-yl)ureido)-N,N-dipropylpropanamide.